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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,002	03/26/2004	Stephen Vacarezza	H0004532	9025

7590 10/06/2005

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EXAMINER

WHITE, DWAYNE J

ART UNIT	PAPER NUMBER
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3745

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/811,002	Applicant(s) VACAREZZA ET AL.	
	Examiner Dwayne J. White	Art Unit 3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 26 March 2004.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-21 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1,3,6-8 and 10-21 is/are rejected.

7) ☒ Claim(s) 2,4,5 and 9 is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on 26 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some * c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/14/04.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites the limitation “the shield prevents material entering the passage from contacting an attachment mechanism joint of a boreless compressor wheel, “ in lines 1-2. It is unclear whether Applicant is claiming an additional attachment mechanism than the one claim in claim 1 from which claim 8 depends or the same attachment mechanism. Further, it appears there may be some wording left out of the claim between “mechanism” and “a joint”.

Clarification of the claim is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, 6, 12 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Joco (4,944,660). Joco discloses an assembly comprising a boreless compressor wheel 14 that includes a joint 58; and a shield 60 that comprises an attachment mechanism disposed on an outer surface to attach the shield to the joint and a passage extending from the proximate end of the shield to the distal end of the shield.

Claims 1, 3, 6, 12 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Heyes et al. (6,948,913). Heyes et al. discloses an assembly comprising a boreless compressor wheel 1 having a joint 12; and a shield 3 that comprises an attachment mechanism, an interference fit (See Abstract) disposed on an outer surface to attach the shield to the joint and a passage 10 extending from the proximate end of the shield to the distal end of the shield.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10 and 15-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joco in view of Norton et al. (6,146,931). Joco discloses all of the claimed subject matter, including the boreless compressor wheel further comprising a shaft inserted into the joint, except the joint being treated by a cold working process.

Norton et al. teaches treating the inner circumference of the bore of a compressor wheel by any conventional cold working process, which includes shot peening. Since it is well known

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in the art that cold working minimizes surface defects that would normally be present in joint (Column 3, line 3 to Column 4 line 5), it would have been obvious at the time the invention was made to one of ordinary skill in the art to treat the joint of Joco as taught by Norton et al. for the purpose of reducing fatigue in the joint. In regards to claim 10, since the shield has an opening at its proximal and distal ends for inserting a shaft it is the position of the Examiner that this opening can serve to allow cold working material to exit the passage. In regards to claim 16, the surface where the shield is placed is not treated by the cold working process.

Claims 7, 10, 14-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heyes et al. in view of Norton et al. Heyes et al. disclose all of the claimed subject matter stated above, including a shaft being inserted into the joint, except for the joint being treated by a cold working process.

Norton et al. teaches treating the inner circumference of the bore of a compressor wheel by any conventional cold working process, which includes shot peening. Since it is well known in the art that cold working minimizes surface defects that would normally be present in joint (Column 3, line 3 to Column 4 line 5), it would have been obvious at the time the invention was made to one of ordinary skill in the art to treat the joint of Heyes et al. as taught by Norton et al. for the purpose of reducing fatigue in the joint. In regards to claim 7, since the shield covers the entire inner circumference of the joint except the end portion, it is the position of the Examiner that material entering the passage during cold working would be prevented from contacting the pilot surface of the joint of the compressor wheel. In regards to claim 10, since the shield has an opening at its proximal and distal ends for inserting a shaft it is the position of the Examiner that

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this opening can serve to allow cold working material to exit the passage. In regards to claim 16, the joint surface where the shield is placed is not treated by the cold working process.

CONCLUSION

Allowable Subject Matter

Claims 2, 4, 5 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

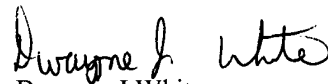
Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwayne J. White whose telephone number is (571) 272-4825. The examiner can normally be reached on 7:00 am to 4 pm T-F and alternate Mondays.

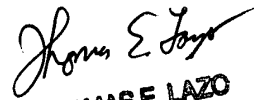
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Dwayne J White
Patent Examiner
Art Unit 3745

DJW


THOMAS E. LAZO
PRIMARY EXAMINER